

ABSTRACT

PROBLEMS TO BE SOLVED

Methods for enhancing survival and/or proliferation of neural stem cells and pharmaceutical compositions containing neural stem cells prepared by such methods, together with methods for assaying factors enhancing survival and/or proliferation of neural stem cells and methods for screening for such factors.

MEANS FOR SOLVING THE PROBLEM

Either Galectin-1 is overexpressed in neural stem cells or neural stem cells are cultured in a liquid medium containing Galectin-1. Pharmaceutical compositions containing Galectin-1-overexpressing neural stem cells and pharmaceutical composition containing Galectin-1, prepared by the aforementioned methods, improve higher cerebral functions damaged by cerebral ischemia. Further, by seeding neural stem cells at clonal concentrations and determining whether the seeded neural stem cells are capable of proliferating in an assay medium to be assayed, whether the factor enhances survival and/or proliferation of neural stem cells is assayed and a factor enhancing survival and/or proliferation of neural stem cells are identified using this assay method.